AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Cancelled)
2. (Cancelled)
3. (Cancelled)
4. (Cancelled)

5. (Previously Presented) A polymer electrolyte fuel cell comprising:

a housing provided with an anode-side supply inlet for supplying a material for fuel;

an anode and a cathode accommodated in the housing to sandwich a polymer electrolyte membrane;

a layer containing a biochemical catalyst which decomposes the material for fuel to generate hydrogen, the layer being formed within the housing between the anode-side supply inlet and the anode;

wherein the biochemical catalyst comprises a combination of Clostridium butyricum and formate-hydrogen lyase.

6. (Cancelled)
7. (Cancelled)
8. (Cancelled)

9. (Previously Presented) A polymer electrolyte fuel cell comprising:

a housing provided with an anode-side supply inlet for supplying a material for fuel;

an anode and a cathode to sandwich a polymer electrolyte membrane; and

a layer containing a biochemical catalyst which decomposes the material for fuel to generate fuel, the layer being formed between the anode-side supply inlet and the anode;

wherein the biochemical catalyst comprises a combination of Clostridium butyricum and formate-hydrogen lyase.

10. (Previously Presented) A fuel cell according to claim 9 further comprising an anode-side collector and a cathode-side collector which sandwich the anode and the cathode therebetween, wherein the anode-side collector also serves as the layer containing the biochemical catalyst.

11. (Cancelled)

12. (Previously Presented) A polymer electrolyte fuel cell comprising:

a housing provided with an anode-side supply inlet for supplying a material for fuel, the anode-side supply inlet being connected to a supply section for supplying the material for fuel;

an anode and a cathode accommodated in the housing to sandwich a polymer electrolyte membrane; and

a filter containing a layer containing a biochemical catalyst which decomposes the material for fuel to generate fuel, the filter being formed in the supply section, wherein the biochemical catalyst comprises a combination of Clostridium butyricum and formate-hydrogen lyase.

13. (Previously Presented) A fuel cell according to claim 12 further comprising an anode-side collector and a cathode-side collector which sandwich the anode and the cathode therebetween, wherein the anode-side collector also serves as the layer containing the biochemical catalyst.

14. (Cancelled)

15. (Cancelled)

16. (Cancelled)

17. (Cancelled)

18. (Cancelled)

19. (Cancelled)

20. (Cancelled)

21. (Cancelled)

22. (Cancelled)

23. (Cancelled)

24. (Cancelled)

25. (Previously Presented) A polymer electrolyte fuel cell comprising:

a housing provided with an anode-side supply inlet for supplying a material for fuel;

an anode and a cathode accommodated in the housing to sandwich a polymer electrolyte membrane;

a layer containing a biochemical catalyst which decomposes the material for fuel comprising one or more material(s) selected from methanol, formaldehyde and formic acid, the layer being formed between the anode-side supply inlet and the anode;

wherein the biochemical catalyst comprises a combination of Clostridium butyricum and formate-hydrogen lyase.

26. (Cancelled)

27. (Cancelled)

28. (Previously Presented) A polymer electrolyte fuel cell comprising:

a housing provided with an anode-side supply inlet for supplying a material for fuel;

an anode and a cathode accommodated in the housing to sandwich a polymer electrolyte membrane; and

a layer containing a biochemical catalyst which decomposes the material for fuel to generate fuel, the layer being formed between the anode-side supply inlet and the anode,

wherein the biochemical catalyst comprises a combination of Clostridium butyricum and formate-hydrogen lyase, and the material for fuel is selected from oxygen-containing hydrocarbons such as alcohols, polysaccharides, aldehydes, ketones, and carboxylic acids.

29. (Cancelled)

30. (Previously Presented) A polymer electrolyte fuel cell comprising:

a housing provided with an anode-side supply inlet for supplying a material for fuel, the anode-side supply inlet being connected to a supply section for supplying the material for fuel;

an anode and a cathode accommodated in the housing to sandwich a polymer electrolyte membrane; and

a filter containing a layer containing a biochemical catalyst which decomposes the material for fuel to generate fuel, the filter being formed in the supply section;

wherein the biochemical catalyst comprises a combination of Clostridium butyricum and formate-hydrogen lyase, and the material for fuel is selected from oxygen-containing hydrocarbons such as alcohols, polysaccharides, aldehydes, ketones, and carboxylic acids.

31. (Cancelled)

32. (Previously Presented) A polymer electrolyte fuel cell comprising:

a housing provided with an anode-side supply inlet for supplying a material for fuel;

an anode and a cathode accommodated in the housing to sandwich a polymer electrolyte membrane; and

a layer containing a biochemical catalyst which decomposes the material for fuel to generate fuel, the layer being formed between the anode-side supply inlet and the anode;

wherein the biochemical catalyst comprises a combination of Clostridium butyricum and formate-hydrogen lyase, and the material for fuel is in the form of an aqueous solution.

33. (Cancelled)

34. (Previously Presented) A polymer electrolyte fuel cell comprising:

a housing provided with an anode-side supply inlet for supplying a material for fuel, the anode-side supply inlet being connected to a supply section for supplying the material for fuel;

an anode and a cathode accommodated in the housing to sandwich a polymer electrolyte membrane; and

a filter containing a layer containing a biochemical catalyst which decomposes the material for fuel to generate fuel, the filter being formed in the supply section;

wherein the biochemical catalyst comprises a combination of Clostridium butyricum and formate-hydrogen lyase, and the material for fuel is in the form of an aqueous solution.

35. (Previously Presented) A polymer electrolyte fuel cell comprising:

a housing provided with an anode-side supply inlet for supplying a material for fuel, the anode-side supply inlet being connected to a supply section for supplying the material for fuel;

an anode and a cathode accommodated in the housing to sandwich a polymer electrolyte membrane;

a filter containing a layer containing a biochemical catalyst which decomposes the material for fuel comprising one or more material(s) selected from methanol, formaldehyde, and formic acid, the filter being formed in the supply section;

wherein the biochemical catalyst comprises a combination of Clostridium butyricum and formate-hydrogen lyase

36. (CANCELLED)
37. (CANCELLED)
38. (CANCELLED)
39. (CANCELLED)
40. (CANCELLED)
41. (CANCELLED)
42. (CANCELLED)
43. (CANCELLED)